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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,279	11/19/2003	Clifton E. Scott	020296	9985
23696	7590	08/11/2006	EXAMINER	
QUALCOMM INCORPORATED			DARE, RYAN A	
5775 MOREHOUSE DR.			ART UNIT	
SAN DIEGO, CA 92121			PAPER NUMBER	
			2186	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/718,279	<b>Applicant(s)</b> SCOTT ET AL.	
	<b>Examiner</b> Ryan Dare	<b>Art Unit</b> 2186	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 17-26 and 28-32 is/are allowed.
- 6) ☒ Claim(s) 6-16 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-5, 17-26 and 29-32 are allowed. Dependent claim 28 contains allowable subject matter and would be allowable if all limitations were incorporated into parent claim 27.
2. The following is a statement of reasons for the indication of allowable subject matter: No prior art of record teaches a flash memory containing a code bank and a data bank where the flash driver is executed in the code bank while sufficient space is expected to exist in the data bank and otherwise writing data to the code bank under control of a flash driver in external memory, as recited in independent claims 1, 17, 22, 29 and dependent claim 28.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.

Art Unit: 2186

2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 6-16 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, US PG Pub 2002/0169923, in view of Applicant's admitted prior art.
4. With respect to claim 6, Chen teaches a wireless communication device, comprising:
- at least one processor, in fig. 3, Processor 112;
  - at least one RAM communicating with the processor, in fig. 3, memory 124 and the last three lines of par. 5.
  - at least one flash driver controlling operation of the flash memory device, the flash driver being executable from the RAM, in par. 16.
- Chen teaches a flash memory device communicating with the processor, in fig. 3, Flash memory 126, but fails to teach that it is a RWW (read-while-write) flash memory. Applicant's background admits that a RWW flash memory can be used in a wireless communication device.
5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the flash memory system of Chen with the flash memory system of Applicant's admitted prior art. Chen teaches the prior art system of a non-RWW memory. Since in the prior art memory, you cannot read from flash at the same time as writing to it, the flash driver needs to be executed from external memory (see Chen, par. 4). Applicant's admitted prior art which includes an RWW memory has the ability to execute the flash driver from the code portion because of the RWW

Art Unit: 2186

capability. However, while this may be the preferred embodiment of Applicant's invention, since executing the flash driver from external memory is the conventional method, as with Chen, one of ordinary skill in the art would have been motivated to use the nonpreferred conventional method. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In a typical RWW flash memory, the flash driver is not the only code that is executed from the code bank. Other applications can be executed from it as well. By using the conventional method of locating the flash driver in an external memory, one of ordinary skill in the art would have been motivated to do this with a RWW flash memory so other application programs may be executed in the code bank, while simultaneously writing to the data bank and executing the flash driver from external memory. This motivation is different from applicant's own motivation which is to write data to the code bank, so it is not impermissible hindsight by the examiner.

6. With respect to claim 7, Chen teaches the device of claim 6, wherein the flash driver is prevented from accessing code in a code bank of the flash memory device at least when performing operations on the flash memory device, in par. 16, where it is disclosed that the needed parts of the system program are loaded into volatile memory to prevent access to the flash memory device.

7. With respect to claim 8, Chen teaches the wireless communication device of claim 6, wherein the flash driver is executed by the processor, in par. 6.

8. With respect to claims 9 and 14, Chen fails to teach that the flash driver is executed to download at least one game into the wireless communications device.

Art Unit: 2186

However, it is widely known in the art that a wireless communication device such as a wireless phone is able to download a game, as taught by Applicant in the last sentence of par. 3.

9. It would have been obvious to one of ordinary skill in the art to implement the flash memory device of Chen on a wireless phone that allows a user to download a game, as taught by Applicant's own prior art admission, as is it is a common feature in the art.

10. With respect to claim 10, Chen teaches the wireless communication device of claim 6, wherein one and only one copy of the flash driver exists in the wireless communication device, and that in the RAM, in the last sentence of par. 4.

11. With respect to claim 11, Chen teaches a wireless communication device comprising:

at least one MSM processor, in fig. 3, processor 112.

at least one RAM accessed by the processor, in fig. 3, memory 124 and the last three lines of par. 5.

at least one read-while-write flash memory accessed by the processor, the processor writing data to the flash memory by accessing a flash driver instantiated in the RAM, in the last sentence of par. 4.

Chan does not specifically disclose that the processor is an MSM processor. However, in light of Applicant's background, which defines an MSM processor as a processor in a wireless communications device that accesses RAM to store data and a

Art Unit: 2186

flash memory to store software, the processor of Chan therefore meets Applicants definition of an MSM processor.

12. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the flash memory system of Chen with the flash memory system of Applicant's admitted prior art. Chen teaches the prior art system of a non-RWW memory. Since in the prior art memory, you cannot read from flash at the same time as writing to it, the flash driver needs to be executed from external memory (see Chen, par. 4). Applicant's admitted prior art which includes an RWW memory has the ability to execute the flash driver from the code portion because of the RWW capability. However, while this may be the preferred embodiment of Applicant's invention, since executing the flash driver from external memory is the conventional method, as with Chen, one of ordinary skill in the art would have been motivated to use the nonpreferred conventional method. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In a typical RWW flash memory, the flash driver is not the only code that is executed from the code bank. Other applications can be executed from it as well. By using the conventional method of locating the flash driver in an external memory, one of ordinary skill in the art would have been motivated to do this with a RWW flash memory so other application programs may be executed in the code bank, while simultaneously writing to the data bank and executing the flash driver from external memory. This motivation is different from applicant's own motivation which is to write data to the code bank, so it is not impermissible hindsight by the examiner.

Art Unit: 2186

13. With respect to claim 12, Chen teaches the wireless communication device of claim 11, wherein the flash memory includes a code bank and a data bank, in fig. 3, where the code bank stores the System program 128 and Flash memory driver 132, while the code bank stores the Data file 136.

14. With respect to claim 13, Chen teaches the wireless communication device of claim 11, wherein the processor accesses a flash driver in the RAM to write program data to the code bank, in the last sentence of par. 4.

15. With respect to claim 15, Chen teaches the wireless communication device of claim 6, wherein one and only one copy of the flash driver exists in the wireless communication device, and that in the RAM, in the last sentence of par. 4.

16. With respect to claim 16, Chen teaches the device of claim 12, wherein the flash driver is prevented from accessing code in the code bank at least when performing operations on the flash memory, in par. 16, where it is disclosed that the needed parts of the system program are loaded into volatile memory to prevent access to the flash memory device.

### ***Claim Rejections - 35 USC § 102***

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



18. Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Chen. Chen teaches a wireless communication device, comprising:

a processor, in fig. 2, processor 112;

a flash memory device comprising a code bank and a data bank, wherein the code bank comprises a local copy of a flash driver operable to be accessed by the processor to perform operations on the data bank, in fig. 3, where the flash memory driver 132 which is in the code bank, and data file 136 which is in the data bank; and

a storage device, external from the flash memory device, comprising an external copy of the flash driver operable to be accessed by the processor to store data in the code bank, in par. 4 and fig. 4.

### ***Response to Arguments***

19. Applicant's arguments, see pages 8-11, filed 5/17/06, with respect to the rejections of claims 1-5 and 17-23 under 35 USC 103(a) have been fully considered and are persuasive. The rejection of claims 1-5 and 17-23 has been withdrawn. See the above reasons for indication of allowable subject matter.

20. Applicant's arguments, see pages 11-14 filed 5/17/06, with respect to the rejection of claims 6-16 under 35 USC 103(a) have been fully considered but they are not persuasive. The examiner has clarified the motivation to combine the references and the method of combining the references to achieve Applicant's invention in the above 103 rejection. In particular, the Applicant's admitted prior art teaches executing a flash driver from a code bank in memory. However, the conventional art teaches

Art Unit: 2186

executing the flash driver from an external memory. While this may not be the preferred embodiment of Applicant's prior art, and not the "most robust" solution, it is the solution of the conventional art, which is reason for one of ordinary skill in the art at the time the invention was made to be motivated to apply the conventional method of locating a flash driver in an external memory to a RWW flash memory system. It is not inherent in a RWW flash memory system that the flash driver be executed from a code bank. The code bank can be used to execute any type of executable code. Therefore the inclusion of a RWW flash memory does not inherently disclose executing a flash driver from the code bank and does not teach away from combining the prior art as the examiner has done from the above 103 rejection.

21. With respect to Applicant's arguments on pages 13-14 with respect to the rejection of claims 7-16 the examiner has clearly shown that Chen suggests preventing accessing code in a code bank of the flash memory device at least while performing operation the flash memory device. The flash driver is loaded into external memory while writing data to the flash memory because Chen teaches a flash memory where you can't read and write simultaneously, thus teaching the present claims.

22. With respect to Applicant's arguments on page 14 with respect to the rejection of claim 12, the examiner has shown above that Chen does disclose a code bank and a data bank. The code bank stores the flash driver and system program, while the data bank stores the data file (fig. 3).

23. With respect to Applicant's arguments on page 14 with respect to the rejection of claim 13, the examiner has shown that Chen does disclose a flash driver in the RAM to write program data to the code bank, as discussed above.

24. With respect to Applicant's arguments on pages 14-15 regarding new claims 24-32, the examiner finds that claims 24-26 are allowable for depending from allowable claim 1. Claims 29-32 are also allowable because independent claim 29 contains the novel features of the invention listed above in the statement of reasons for allowable subject matter. Claim 27 is taught by Chen, but if it were to incorporate all the limitations of claim 28, would be allowable as well.

### ***Conclusion***

25. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach similar flash memory devices.

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2186

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Dare whose telephone number is (571)272-4069. The examiner can normally be reached on Mon-Fri 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ryan A. Dare  
August 7, 2006



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